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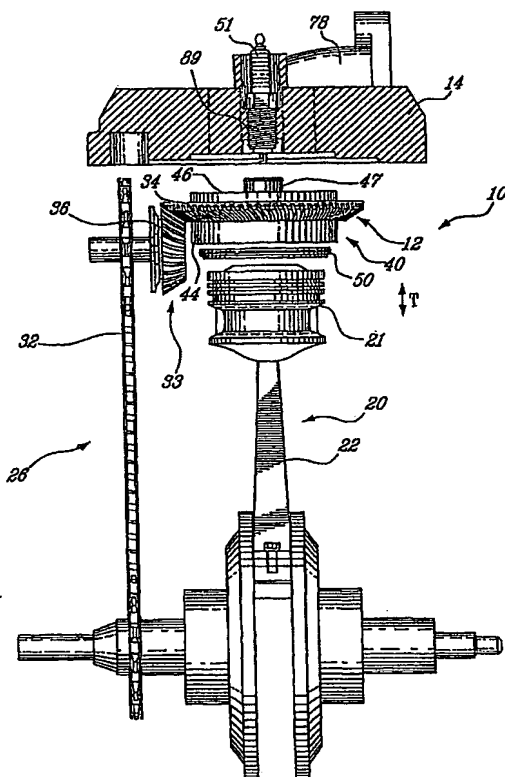
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(54) Title: DISC VALVE SYSTEM FOR AN INTERNAL COMBUSTION ENGINE



(57) Abstract: A disc valve system for a piston driven internal combustion engine. The disc valve system comprises at least one rotating disc valve and an intermediate seal member. The disc is mounted between a cylinder head manifold having exhaust and intake ports and an engine cylinder housing the piston and defining a combustion chamber. The disc comprising sequencing ports to be brought into periodic communication with the exhaust and intake ports at cyclic intervals of the rotating movement thereof, thereby providing for the exhaust and intake ports to be brought into periodic communication with the combustion chamber. The intermediate seal member is mounting between the disc and the cylinder so as to seal the combustion chamber at a junction of the disc and the cylinder. The intermediate seal member comprising a dynamic seal for contact with the disc and a stationary seal for sealing contact with the engine cylinder. The rotating movement of the disc sequentially opens and closes each exhaust and intake ports synergistically with the translational movement of the piston. Engines comprising these disc valve systems are also disclosed herein.

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